

SIMATIC DP, ELECTRONIC MODULE ET200S: 2AI HIGH SPEED I-2WIRE, 0 - 20MA, 4 - 20MA, 15BIT, 15 MM WIDTH, FOR 2-WIRE TRANSDUCER, CYCLE TIME OF THE MOD.: 0.1MS, WITH LED SF (GROUP FAULT)



Figure similar

| Supply voltage | |
|---|--------|
| Load voltage L+ | |
| • Rated value (DC) | 24 V |
| • Short-circuit protection | Yes |
| • Reverse polarity protection | Yes |
| Input current | |
| from load voltage L+ (without load), max. | 225 mA |
| from backplane bus 3.3 V DC, max. | 10 mA |
| Output voltage | |
| Power supply to the transmitters | |
| • present | Yes |
| • short-circuit proof | Yes |
| Power loss | |
| Power loss, typ. | 2.5 W |
| Address area | |
| Address space per module | |
| • Address space per module, max. | 4 byte |

Analog inputs

| | |
|--|--------------|
| Number of analog inputs | 2 |
| Cycle time (all channels) max. | 0.25 ms |
| Input ranges | |
| • Voltage | No |
| • Current | Yes |
| • Thermocouple | No |
| • Resistance thermometer | No |
| • Resistance | No |
| Input ranges (rated values), currents | |
| • 0 to 20 mA | Yes |
| • Input resistance (0 to 20 mA) | 106 Ω |
| • 4 mA to 20 mA | Yes |
| Cable length | |
| • shielded, max. | 200 m |

Analog value generation for the inputs

| | |
|---|----------------------|
| Integration and conversion time/resolution per channel | |
| • Resolution with overrange (bit including sign), max. | 16 bit |
| Smoothing of measured values | |
| • parameterizable | Yes |
| • Step: None | Yes; 1 x cycle time |
| • Step: low | Yes; 4 x cycle time |
| • Step: Medium | Yes; 16 x cycle time |
| • Step: High | Yes; 32 x cycle time |

Encoder

| | |
|--|-----|
| Connection of signal encoders | |
| • for current measurement as 2-wire transducer | Yes |

Errors/accuracies

| | |
|--|----------|
| Linearity error (relative to input range), (+/-) | 0.03 % |
| Temperature error (relative to input range), (+/-) | 0.01 %/K |
| Crosstalk between the inputs, min. | 50 dB |
| Repeat accuracy in steady state at 25 °C (relative to input area), (+/-) | 0.1 % |
| Operational error limit in overall temperature range | |
| • Current, relative to input area, (+/-) | 0.3 % |
| Basic error limit (operational limit at 25 °C) | |
| • Current, relative to input area, (+/-) | 0.2 % |

Isochronous mode

| | |
|---|-----|
| Isochronous operation (application synchronized up to terminal) | Yes |
|---|-----|

Interrupts/diagnostics/status information

Alarms

- Hardware interrupt Yes

Diagnostic messages

- Wire-break Yes; at 4 to 20 mA
- Group error Yes
- Overflow/underflow Yes

Diagnostics indication LED

- Group error SF (red) Yes

Parameter

| | |
|------------------------|------------------------|
| Diagnostics wire break | At 4 to 20 mA |
| Measurement type/range | 4 to 20 mA, 0 to 20 mA |
| Group diagnostics | 1 |
| Overflow/underflow | 1 |

Potential separation

Potential separation analog inputs

- between the channels No
- between the channels and backplane bus Yes
- Between the channels and load voltage L+ Yes

Permissible potential difference

| | |
|--------------------------------------|-----------------|
| between MANA and M internally (UISO) | 75 V DC/60 V AC |
|--------------------------------------|-----------------|

Dimensions

| | |
|--------|-------|
| Width | 15 mm |
| Height | 81 mm |
| Depth | 52 mm |

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